



October 2, 2008

Ms. Donna Inman
US EPA Region 8
8ENF-UFO
Technical Enforcement Program
1595 Wynkoop Street
Denver, Colorado 80202-1129

Re: Response to Second Round Comments
Revised Work Plan
Keller Trucking Fuel Spill
Mile 5.2, Highway 35
Polson, Montana

Dear Ms. Inman,

Environmental Partners, Inc. (EPI) is pleased to submit this Response to Second Round Comments to the Revised Work Plan for additional investigative and remedial actions at the Keller Trucking Fuel Spill at mile 5.2 of Highway 35 in Polson, Montana (site). The site is subject to an Administrative Order (Order) under Section 311(e) of the Clean Water Act (CWA) and Section 7003 of the Resource Conservation and Recovery Act (RCRA). The Order was issued by EPA Region 8 on May 22, 2008 and was received by Keller Transport on May 28, 2008.

In accordance with the Order, a Draft Work Plan dated June 26, 2008 was provided to the Environmental Protection Agency Region 8 (EPA) for review and comment. The EPA provided comments to the Draft Work Plan via electronic mail on July 17, 2008 and additional clarification and direction via electronic mail on July 23, 2008. The Revised Work Plan and a Response to Comments were provided to EPA in documents dated July 28, 2008.

Since that time EPA has requested that Keller and EPI prepare an Engineering Evaluation Cost Estimate, to perform soil sampling and analysis to confirm the results of the Laser Induced Fluorescence (LIF) survey, and to characterize the in situ soils for waste handling. Comments to the Revised Work Plan were received via electronic mail at the close of business on September 5, 2008.

Also since the submittal of the Revised Work Plan, EPA has appointed an On-Scene Coordinator (OSC), Mr. Steven Way. Keller and EPI have met with Mr. Way, Ms. Inman, and Mr. Mike Durglo of the Confederated Salish and Kootenai Tribes (CS&KT) on-site to discuss the scope of the Revised Work Plan. The scope of work presented in the attached Revised Final Work Plan has been substantially revised based upon the direction of the OSC. Those revisions include consideration of current observations of field conditions, input from the landowners, input from Mr. Way and the input of Mr.

Durglo. As such, some of the prior comments provided by EPA do not apply to the current planned scope of work.

The primary focus of the planned remedial action is not mass excavation of contaminated soils located primarily on the Arnold, Kohler, and Jones properties and installation of the lower interceptor trench. The upper interceptor trench has been eliminated from the Work Plan as has the task for upgradient ground water extraction from existing and planned monitoring wells. Based upon updated site knowledge and conditions the EPA, Keller, and EPI have concluded that these actions do now provide substantial benefit while adding substantially to project costs and complexity and have therefore been eliminated from the scope of work. EPA has reserved the right to request additional ground water treatment of a type and approach to be determined in later phases of remedial action.

This Response to Second Round Comments and the enclosed Revised Final Work Plan are being provided on behalf of Keller Transport and its insurer, ACE Westchester Specialty Group (ACE). EPI is the technical lead on the project and Mr. Thomas Morin is the Project Coordinator for the Site.

While EPA's comments were not enumerated, EPI has attempted to categorize EPA's comments by general topic and to address comments in the order in which they are presented. All EPA comments are presented verbatim. For reference, EPA's original comments are presented in Attachment A to this letter.

Specific Comments

Comment No 1. *Pages 12 and 13: Figure 9 is referenced as having the Lake samples and the three surface water grab samples labeled. The lake samples are indicated on figure 9, but it is unclear which location is what sample number. The three surface water grab samples are not indicated or labeled on figure 9. The August monthly monitoring report indicated that dock samples had been collected. What are dock samples? From where were they collected? What is the purpose for collecting these samples?*

Figure 9 has been revised accordingly and is included in the Final Work Plan.

The lake/surface water samples are collected from the docks since the docks allow access to the areas of the lake that are to be sampled. Sampling from the docks is safer for site personnel than using boats or wading into the lake.

Comment No. 2. *Page 14: EPI has reported that the extraction of contaminated water from MW-4 has not been as productive as what was anticipated. EPA agrees that short term groundwater extraction and treatment does not need to occur at this time, unless there is evidence of separate phase product in a well.*

Comment noted and EPI concurs. If separate-phase hydrocarbons are observed in the monitoring wells additional actions will be taken. For reference, the sustainable pumping rate from MW-4 was less

than 1 gallon/minute and such pumping did not provide a reliable or effective method of contaminant mass recovery.

Comment No. 3. *Page 16 and 17: In order to evaluate the efficacy of the trench system, piezometers should be installed for each cell as follows: one in the trench, one up gradient, and one down gradient.*

Figure 9 has been modified to note the requested changes. Please be aware that the recovery well within the each trench segment will contain a piezometer or other method for measuring potentiometric conditions within a particular trench segment.

Comment No. 4. *Please provide EPA with EPI's rationale for transforming the eleven temporary wells to permanent wells.*

Text has been revised. Based upon current plans the majority of the temporary wells will be destroyed during excavation activities and new wells will be installed.

Comment No. 5. *The equipment in the lift station for the trench collection system must be designed to be intrinsically safe. EPA has not seen the design for this.*

The need for a lift station has been eliminated from the treatment system design. The pumping equipment within the trenches segments is sufficient to pump water to the treatment system without the need for an intermediate lift station. Figure 9 and the designs have been revised accordingly.

Comment No. 6. *As discussed in numerous phone conversations between EPA and EPI, the treatment plant will be constructed at least 100 feet away from the drinking water well. It is EPA's understanding that the treatment system is to be constructed on property owned by the East Bay Subdivision north of the Arnold's property line. Please verify this and include this information on Figure 9 and in the text of the Work Plan.*

EPA's understanding is correct. EPA has inspected the site and has previously been provided with maps and drawings from the building permit that illustrate the location of the proposed treatment system relative to the water supply well. Figure 9 has been revised to indicate the currently proposed building location and orientation.

Comment No. 7. *EPA needs a copy of the actual design for the treatment building and associated treatment equipment. Be aware that if the back-up diesel generator has a capacity of 1,320 gallons, it will trigger the SPCC regulations and an SPCC Plan will need to be developed.*

The design for the building is still in preparation. The building will be prefabricated steel and engineered and designed by the vendor to meet local codes commensurate with snow, wind, and seismic loads. The ultimate building design will be approved by the Lake County Building Department.

A system layout, process schematic and process and instrumentation diagram (P&ID) have been included in the Revised Final Work Plan.

Comment No. 8. *A completed NPDES permit application for the treatment system, is referenced on page 24, "Complete NPDES Permitting for Treatment System; August 29." This commitment can not be made by EPI at this time. A statement of basis for a permit cannot be initiated until a complete application is received. The completed permit application was received by EPA on August 18, 2008. 40 CFR 122.21(c) requires an application to be submitted 180 days prior to the expected date of discharge due, in part, to required 30-day comment periods. EPA will expedite our review but we cannot modify the public comment period required by 40 CFR 122.21.*

Comment noted. Discharge from the treatment system and discharge monitoring continue in substantial compliance with the anticipated ultimate requirements of the NPDES permit.

Comment No. 9. *Page 18 and 19: Mass Excavation_- EPA approves the excavation plan as proposed contingent upon resolution of the soil handling concerns. Various soil handling and disposal options have significant differences in regulatory requirements and costs which should be addressed in the revised Final Work Plan. EPA concurs with EPI's suggestion that the Montana DEQ residential Tier 1 Risk-based Screening Levels for soil be used at this site as shown on Table 9. The Tribe also agrees that Montana DEQ residential Tier 1 Risk-based Screening Levels for soil be used at this site. The EPA also agrees that benzene will be the driver.*

In on-site discussions with the OSC it has been determined that numerical standards may not be the ultimate driver for contaminated soil excavation. The primary driver for soil excavation will be to maximize contaminant mass removal to the extent reasonably practicable but that consideration shall be given to the disturbance of the landowners property and subsurface improvements. The landowners have also indicated, through counsel, that they would like the *"maximum amount of contaminated soil removed from their property."* If possible and reasonably practicable EPI will seek to attain the numerical cleanup standards stated above, but attainment of those standards may not be reasonable. Before terminating remedial excavation in any area EPI will consult with the OSC for concurrence on the decision to cease excavation. If directed to continue excavation, EPI will do so at the direction of the OSC.

Comment No. 10. *The current Work Plan needs to address work that has been accomplished subsequent to the submittal of the Work Plan. The Laser-Induced Fluorescence (LIF) investigation needs to reference the auger sampling that was done for purposes of calibration and quality control. EPA is in receipt of the summary of the analytical results for the hand auger samples collected in August 2008. EPA is awaiting a more detailed explanation of the representative correlation of LIF detections with soil samples analyzed in a laboratory to verify the degree of saturation of separate phase hydrocarbon. EPA information on LIF can be found at: www.clu-in.org/char/technologies/LIF.cfm.*

EPA has been provided with the data from the LIF investigation, the hand auger correlation data and the subsequent waste characterization sampling. The Revised Final Work Plan is not intended to be an

continuous report of findings at the site. EPI will summarize all site investigation activities and data in the final report for the remedial actions. The data from the LIF correlation investigation and the waste characterization sampling have been considered during conversations with EPA and the OSC and have been incorporated into the planned remedial actions.

Comment No. 11. *Please analyze the soil for grain size and bulk density using the in field sieve as Randy Breeden suggested.*

Field sieving of these soils was not possible. The soils were too wet and contained a significant fraction of fine-grained/cohesive soils. Such soils require drying prior to field sieving to prevent the results from being skewed to a coarser grain size distribution.

Comment No. 12. *Removal of weathered bedrock in addition to the overlying soil should be completed if hydrocarbons are present in the weathered bedrock above the cleanup levels.*

Soil or soil-like material that can be excavated using standard excavation methods (i.e., excavator with bucket) will be removed. "Weathered bedrock" can take many intermediate forms from fractured and coarse angular rock to relatively fine and argillaceous soils. All materials that can both be physically excavated and which exceed a target cleanup level will be removed.

Comment No. 13. *EPA concurs with the methods for confirmation soil sampling as stated on page 19 of the proposed Final Work Plan.*

Comment noted.

Comment No. 14. *EPA will not approve backfilling the excavated areas with just pea gravel and one foot of soil. Rather than total backfill with pea gravel, a venting layer of appropriate thickness located at the appropriate depth within the zone of contamination vented to the surface, with the remainder of the backfill as clean cohesive plant growth media should be the design.*

Comment noted. The Revised Final Work Plan has been revised to reflect this consideration as well as our subsequent on-site discussions with Mr. Way and Ms. Inman.. However, until the excavation is underway and actual subsurface conditions can be observed and documented it is not possible to reliably design or anticipate the "appropriate thickness located at the appropriate depth" indicated above by EPA. This will need to be a field decision made in concurrence with the OSC. EPI understands the need to limit, to the extent practical, the amount of pea gravel fill placed at the site and to maximize the amount of structural fill.

Comment No.15. *Appropriate permits for discharge of water from the excavation and water treatment system, for dredge and fill permits (as needed), for soil handling and for other generated wastes should be obtained. (See other comments).*

EPI and Keller believe that they are complying with necessary permits and working to acquire future permits. If EPA is concerned that a particular permit or permit requirement is not being met please let us know which permit is of concern.

Comment No. 16. *Impacts to the community wastewater system due to excavation, transportation of contamination through the waste water systems or if free product has entered the utility trenching and deteriorated the lines to the point they were no longer functional would be another concern that must be addressed. The community lift station could also be used as a vapor sampling point for the sewer lines, if needed.*

EPI has met on-site with EPA to assess the potential impacts to the community wastewater system. It is our understanding that the EPA personnel who visited the site no longer have concerns regarding the performance of the wastewater system relative to the impacts from the fuel spill.

Comment No. 17. *Page 21: Water supply -EPA continues to be concerned about the public water supply. Based on the existing field data, it appears that the separate phase and dissolved phase plumes could have passed through the area occupied by the water system mains and service lines. The depth of the mains and service lines may be 6 feet or more if the original installation specifications were followed. Though the water table is likely below the depth at which contact could occur, the actual separation between water lines and plume is unknown; thus, it is possible that contamination entered the trenches for these lines and may have been drawn into or deteriorated the water lines themselves.*

Tap samples were collected from the Kohler, Jones, and Arnold outside hose bibs on August 21, 2008. Please include the results and methodology in the Work Plan. Please be sure to include the fact that the sampling was done in accordance with standard methods for drinking water sampling. Include an explanation for any deviations. EPA had verbally informed EPI that instead of following the standard purging procedure for drinking water VOC samples, EPI should assure that it purges only enough water prior to collecting each sample to assure that the sample represents the volume of water in the mains and service lines, rather than the well. Interior taps or exterior hose bibs would suffice as sample locations, but hoses and other appurtenances should be disconnected first if bibs are used. Samples must be analyzed by the standard EPA drinking water methods for VOCs, vinyl chloride and phthalates at a laboratory certified for drinking water analysis by EPA or the State of Montana. Please address in the Work Plan whether or not these methods were used.

We reserve the right to require Keller/EPI to take additional samples should we receive information at some future time that leads us to believe that some part of the water system may have become contaminated.

EPI has met on-site with EPA to assess these potential risks. In plan view, the product released likely did migrate through or near the buried supply piping. However, in cross-section, the contaminated water and potential product were separated vertically by several to tens of feet. It is our understanding that this condition became apparent to EPA personnel during the site visit. It is highly unlikely that free-phase fuel came into contact with any water supply lines or was able to enter a pressurized pipe.

In response to EPA's concerns and at EPA's direction EPI is collecting on a monthly basis tap samples from the exterior hose bibs at the Arnold, Kohler and Jones residences. The methodology for this sampling is indicated in the Final Work Plan. As discussed, all drinking water samples are analyzed using EPA Method 525.2 and samples from the hose bibs are additionally analyzed using EPA Method 524.

Comment No. 18. *Keller/EPI should be prepared to provide an alternate source of drinking water should benzene or other regulated priority pollutants be detected in the water supply well or the distribution system (mains and service lines). Bottled water alone will not be acceptable as an alternate source because inhalation and dermal contact (showering/bathing), in addition to consumption, are known exposure routes for household water contaminated by benzene. The trigger for this decision should be no more than one-half the benzene MCL (i.e., 2.5 micrograms per liter) to allow sufficient lead time to locate, install, and test a new well prior to hookup, and to allow for re-routing of mains and service lines, if necessary, before the MCL is reached. If/when a new well is installed, it must be located out of the zone of potential contamination; be located in an area which does not subject it to direct the influence of surface water (Microscopic Particulate Analyses in accordance with EPA guidance may be needed to determine this); meet the construction standards of the "Ten State Standards" or Circular DEQ-1; and meet the requirements of the soon-to-be-effective Ground Water Rule promulgated under the Safe Drinking Water Act.*

Recent direction from the OSC has indicated that the sampling frequency for the water supply system shall be decreased to monthly. The monthly sampling frequency has been implemented.

EPI requires clarification from EPA on this comment. The MCL for benzene of 5.0 µg/L is based upon human consumption and is not based upon protectiveness for inhalation or dermal contact. EPI and Keller are, and have been, fully prepared to provide an alternate source of drinking water as stated in the first sentence above. However, bathing and showering are sanitation uses and providing alternate sources for the uses should not be based upon a drinking water criterion.

The ongoing testing has not identified any detectable concentrations of benzene in the water and as time goes by the potential for impacts to the water supply well continues to decrease.

However, EPI and Keller understand EPA's concern. The criteria for siting a new supply well are problematic and no community owned property likely fit the criteria established by EPA. A new well location will require specialized access and easement agreements which cannot readily be acquired in advance of actually needing to site a well. Similarly, engineering and design of pumps and piping and or associated permitting cannot be performed until such time as a location, elevation, and ultimate well depth have been established. Keller and EPI will continue to seek a dialog with EPA regarding this issue and would like to reserve the details for discussion outside of the current Final Work Plan.

Comment No. 19. *All treatment facilities, excavated contaminated soils, recovered product, treatment by-products, and other associated wastes must be located at least 100 feet from the supply*

well and any part of the drinking water distribution system to provide a buffer against potential contamination of the water system should a spill or release of contaminated material occur.

Comment noted.

Comment No. 20. *Page 24: EPA needs a realistic updated schedule of remediation activities at this site. The air abatement systems were not on this version of the Work Plan and need to be included.*

Comment Noted. The schedule has been updated.

Comment No. 21. *Operation and Maintenance including monitoring- Costs for the long-term operation and maintenance of the remedial actions proposed in this first phase work plan and for further actions necessary in subsequent phases are of concern to both the homeowners and EPA. Preliminary options or tasks envisioned for subsequent phases of the remediation (including general descriptions and order of magnitude costs) should be provided. EPA received cost estimate information from EPI on August 25, 2008. Please note that actual cost data will be requested subsequent to various phases of the remediation.*

EPI requires clarification on this comment. EPA has consistently requested "order of magnitude" cost estimates and has then expressed concern regarding the accuracy and precision of such estimates. It should be clarified that all costs are estimates and that there is significant variability that must be incorporated into the necessary assumptions for those estimates. As an example, the operation and maintenance costs for the treatment system are very highly dependent upon the ground water flow rates and the contaminant concentrations contained within those flows. Contaminant concentrations also determine the effective life of liquid- and vapor-phase carbon treatment. If the system flows 500 gallons/minute and the 60,000 pounds of carbon have a 3-month life, the annual carbon costs alone are about \$250,000. However, if the system only flows 250 gallons/minute and the carbon has a 6-month life, annual carbon costs drop to about \$125,000 along with capital equipment costs. None of this can be known until the system is operational and flows can be measured, contaminant loadings can be assessed, and carbon life can be estimated.

Both Keller and EPI understand that actual cost information may be requested by EPA. All such requests for cost information will be provided to Counsel with appropriate backup documentation for equipment and services.

22. *Attachment C - Monitoring and the Quality Assurance Project Plan (QAPP)- Water quality monitoring of wells, seeps, the treatment system, and surface water are approved as proposed on pages 11 and 12 and Attachment C of the Work Plan with the following exceptions and qualifications:*

- The references to the Sampling and Analysis plan (SAP) need to be replaced with references to the Work Plan.*

- *The QAPP requires a signature page with signatures as described in **EPA Requirements for Quality Assurance Project Plans QA/R-5**, EPA document number EPA/240/B-01/003, section A1.5.*
- *A QAPP and SAP (Work plan) both require data quality objectives (DQOs) that are currently missing from the documents submitted. See Section 1.1 page 1 for reference. Please consult **Guidance on Systematic Planning Using the Data Quality Objectives Process QA/G-4**, EPA document number EPA/240/B-06/001 to assist with the DQO process. It is impossible to evaluate sampling plans and detection limits without knowing the data needs (DQOs). The Sampling Process Design (Experimental Design) is missing. This would be an outcome from the DQO process (See, page 5 of the QAPP) (Section B1). Energy Laboratory, Inc.'s Quality Assurance Manual must be included with this QAPP (Section 5.4, page 10).*
- *The Project Officer is Donna K. Inman, USEPA Region 8, 1595 Wynkoop, Denver, CO 80202. The references to John Wardell in Table 1, Section 2.2, page 4 and the distribution list should be changed, as should the references to Region 10.*
- *The Laboratory SOP and/or directions for collecting air samples need to be included in this document (Section 4.3, page 7).*
- *A trip blank must be placed in each and every cooler containing VOC samples (Section 4.6.3, page 8).*
- *EPA Requirements for Quality Assurance Project Plans QA/R-5 and Guidance on Systematic Planning Using the Data Quality Objectives Process QA/G-4 should both be referenced herein (See, Section 14, page 23). Please include appropriate references to statutory requirements (See, Section 1.1, page 1).*
- *Page 12: The method needs to be corrected to reflect the proper EPA methods for drinking water (EPA 524.2) and surface water and/or process water (EPA 602). What method for GW?*
- *The following must be monitored daily: the water supply well; the post pressure tank; and MW-2 (Table 11).*
- *The lake and new wells must be monitored monthly. As lake levels change this monitoring schedule will be revisited.*

Comments noted and revised accordingly. As noted above, EPI has recently been directed to revise the drinking water system sampling frequency to monthly

Comment No. 23. Long term topics- As EPI suggested in the Work Plan, other topics such as the fracture flow and lake-level fluctuations that may impact the hydrocarbon locations; lake

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monitoring in the winter; impact of hydrocarbons on PVC; and revegetation can be addressed in the next phases.

Comment noted.

We look forward to beginning the on-site work and working with the OSC. The appointment of an OSC will be beneficial in making the real-time decisions that are require on an ongoing basis during a remedial action of the type planned. We are optimistic that this approach will facilitate successful completion of this project. In stating our technical points and positions above we have sought to be clear while respectfully stating our position. If after reviewing this letter you have any questions or need additional information, please feel free to call me at (425) 395-0030. We look forward to your response.

Sincerely,

Thomas C. Morin, L.G.
President and Principal Geologist

Attachment A – EPA Comments to Draft Work Plan

cc: Mr. Mark Yavinsky; ACE Westchester Specialty Group
Mr. Charles Hansberry; Counsel for Keller Transport
Mr. Thomas Jones; Counsel for ACE Westchester
Mr. Ron Kohler; President, East Bay Homeowners Association
Mr. Mike Durglo; Confederate Tribes
Mr. Steve Stanley; Lake County, Office of Emergency Management